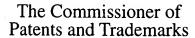
No. 6.034.507

The United States of America



Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to any statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extension.

C. John John

Commissioner of Patents and Trademarks

Ollie M. Luson

United States Patent [19]

Ikawa et al.

[11] Patent Number:

6,034,507

[45] Date of Patent:

*Mar. 7, 2000

[54] ELECTRIC VEHICLE WITH SECONDARY BATTERY POWER STORAGE SYSTEM

[75] Inventors: Kyoko Ikawa; Tatsuo Horiba. both of

Hitachi. Japan

[73] Assignee: Hitachi, Ltd., Tokyo. Japan

[*] Notice: This patent is subject to a terminal dis-

claimer.

[21] Appl. No.: 09/134,708

[22] Filed: Aug. 14, 1998

Related U.S. Application Data

[63] Continuation of application No. 08/606.226, Feb. 23, 1996, which is a continuation of application No. 08/363,372, Dec. 23, 1994, abandoned.

[30] Foreign Application Priority Data

 Dec. 27, 1993
 [JP]
 Japan
 5-331000

 [51]
 Int. CL7
 H01M 10/46

 [52]
 U.S. Cl.
 320/136; 320/132

 [58]
 Field of Search
 320/125, 132, 134, 136, 149, 160

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Primary Examiner—Edward H. Tso Attorney, Agent, or Firm—R. William Beard, Jr.; Frohwitter

57) · ABSTRACT

The present invention provides a distributed secondary battery type power storage system capable of maintaining the soundness of the secondary battery and of efficient electric power charging and discharging operations. The secondary battery power storage system comprises a secondary battery connected to a load, a charge/discharge unit connectable to a power system and connected to the secondary battery, and a plurality of loads connected to the charge/discharge unit. A power receiving object is selected and a capacity is determined on the basis of information about the operating condition of the plurality of loads, and the surplus electric power remaining in the secondary battery after feeding electric power from the secondary battery to the load is fed to the selected power receiving object through the charge/discharge unit. The secondary battery power storage system is capable of maintaining the soundness of the secondary battery and of efficient charging and discharging operation.

4 Claims, 6 Drawing Sheets

ARTIFACT SHEET

Enter	artifact number below. Artifact number is application number +
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	Confidential Information Disclosure Statement or Other Documents
	marked Proprietary, Trade Secrets, Subject to Protective Order,
	Material Submitted under MPEP 724.02, etc.
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	Other, description:
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